EXAMPLE Write the percent as a fraction: a. 98% b. 5%

a. $98\% = \dfrac{98}{100}$ **Definition of percent**

$= \dfrac{49}{50}$ **Simplify.**

b. $5\% = \dfrac{5}{100}$ **Definition of percent**

$= \dfrac{1}{20}$ **Simplify.**

To write a fraction as a percent, you may be able to rewrite the fraction using a denominator of 100. If the denominator of the fraction is not a factor of 100, you can first write the fraction as a decimal and then as a percent.

EXAMPLE Write the fraction as a percent: a. $\dfrac{2}{5}$ b. $\dfrac{5}{8}$

a. $\dfrac{2}{5} = \dfrac{2(20)}{5(20)}$ **Write as a fraction with denominator 100.**

$= \dfrac{40}{100} = 40\%$ **Write as a percent.**

b. $\dfrac{5}{8} = 0.625$ **Write as a decimal.**

$= 62.5\%$ **Write as a percent.**

The table below gives commonly used fractions, decimals, and percents written in increasing order.

$\dfrac{1}{100} = 0.01 = 1\%$	$\dfrac{1}{16} = 0.0625 = 6.25\%$	$\dfrac{1}{10} = 0.1 = 10\%$	$\dfrac{1}{8} = 0.125 = 12.5\%$
$\dfrac{1}{5} = 0.2 = 20\%$	$\dfrac{1}{4} = 0.25 = 25\%$	$\dfrac{1}{3} = 0.\overline{3} \approx 33.3\%$	$\dfrac{3}{8} = 0.375 = 37.5\%$
$\dfrac{2}{5} = 0.4 = 40\%$	$\dfrac{1}{2} = 0.5 = 50\%$	$\dfrac{3}{5} = 0.6 = 60\%$	$\dfrac{5}{8} = 0.625 = 62.5\%$
$\dfrac{2}{3} = 0.\overline{6} \approx 66.7\%$	$\dfrac{3}{4} = 0.75 = 75\%$	$\dfrac{4}{5} = 0.8 = 80\%$	$\dfrac{7}{8} = 0.875 = 87.5\%$

PRACTICE

Write the percent as a decimal and as a fraction.

1. 70%
2. 12%
3. 3%
4. 55%
5. 35%
6. 9%
7. 110%
8. 225%
9. 0.3%
10. 0.5%

Write the decimal as a fraction and as a percent.

11. 0.28
12. 0.13
13. 0.05
14. 0.36
15. 0.52
16. 0.004
17. 0.025
18. 4
19. 1.5
20. 2.3

Write the fraction as a decimal and as a percent. Round decimals to the nearest thousandth. Round percents to the nearest tenth of a percent.

21. $\dfrac{3}{16}$
22. $\dfrac{1}{9}$
23. $\dfrac{61}{100}$
24. $\dfrac{3}{20}$
25. $\dfrac{19}{100}$
26. $\dfrac{17}{25}$
27. $\dfrac{9}{25}$
28. $\dfrac{5}{6}$
29. $\dfrac{4}{7}$
30. $\dfrac{5}{12}$